

a plurality of elastically deformable, solderless conductive terminals, each terminal within a via;  
a circuit board having a plurality of mounting areas, the mounting areas in a plurality of planes which are substantially non-planar with each other; and  
wherein each terminal is individually deformable to contact its respective mounting area at the plane of the mounting area.

22. (Amended) A circuit assembly, comprising:

as  
sub  
B8  
a microprocessor;  
a substrate having a built-in socket having a plurality of vias therein, and a plurality of conductive, elastically deformable solderless terminals, at least a portion of the plurality of terminals within a via; and  
a motherboard having a plurality of mounting areas thereon, each elastically deformable terminal deformed to contact a mounting area.

### REMARKS

Claims 1-22 were pending prior to this amendment. Claims 1, 9, 11, 12, 18, 20, 21 and 22 are amended to more clearly state the recited subject matter. No new matter is believed to be introduced by the foregoing amendments. Claims 1-22 are now pending. Reconsideration and allowance of the claims is respectfully requested. Detailed responses to the rejections of the Office Action, dated July 18, 2000, are as follows.

### Rejections Under 35 U.S.C. §102

Claims 1-22 were rejected under 35 U.S.C. §102(b) as being anticipated by Allen et al. (U.S. Patent No. 4,705,205).

### Claim 1

Claim 1 has been amended to more clearly recite the claimed subject matter including, among other things, solderless conductive terminals. Applicant submits that no new matter has been entered, and support can be found on page 6, lines 14-16, page 7, lines 2-3, and page 8, lines 14-19, among others. It is respectfully submitted that Applicant is unable to find the

subject matter of claim 1 in the Allen et al. reference. For example, among others, Applicant is unable to find in the Allen et al. reference a solderless mounting socket wherein the conductive terminals within the vias contain no solder as defined by the Allen et al. reference, column 7, lines 26-31.

Reconsideration and allowance of claim 1 is respectfully requested.

#### Claims 2 and 3

Applicant respectfully submits that claims 2 and 3 are patentable as further limitations of base claim 1 and repeats the foregoing discussion to support the patentability of claims 2 and 3.

#### Claim 4

Applicant respectfully submits that claim 4 is patentable as a further limitation of base claim 1 and repeats the foregoing discussion to support the patentability of claim 4.

Applicant submits that the rejection has not established a *prima facie* case under 35 U.S.C. § 102(b) since the rejection has not shown that each element is identically shown by the cited patent. MPEP § 2143, *In re Royka*, 490 F.2d 981 (CCPA 1974). Applicant is unable to find the subject matter of claim 4 in the Allen et al. reference as asserted in the rejection. Applicant respectfully traverses the rejection. For example, among others, Applicant is unable to find in the Allen et al. reference a conductive polymer injected within the vias. The Office Action cites Fig. 3(B), col. 9, lines 45-60, and col. 13, lines 20-33 as reference to "plastic" or "polymeric material". Applicant does not see in Fig. 3(B) reference made to plastic nor to a conductive polymer. Applicant respectfully submits that the Office Action mistakenly proposes that a material undergoing elastic/plastic deformation, as described in the reference at col. 9, lines 45-60, as one being composed of a conductive polymer. Applicant respectfully traverses this proposition, and respectfully submits that no reference to a conductive polymer is found. Further, Applicant respectfully submits that the reference to "polymeric material" as described in the reference at col. 13, lines 20-33 is in reference to the retaining member and not to a filler within the vias. Applicant finds no reference to a conductive polymer within the vias in the Allen et al. reference.

In addition, among other things, Applicant respectfully submits that the Office Action confuses the alignment holes for holding alignment pins with the vias that hold electrical

connectors, by citing the reference at Fig. 7, elements 36, 38 & 39. Further, Applicant respectfully submits that the vias in the reference at col. 12, lines 35-58, as cited by the Office Action, do not contain conductive polymer.

Reconsideration and allowance of claim 4 is respectfully requested.

#### Claim 5

Applicant respectfully submits that claim 5 is patentable as a further limitation of base claim 1 and repeats the foregoing discussion to support the patentability of claim 5.

#### Claim 6

Applicant respectfully submits that claim 6 is patentable as a further limitation of base claim 1 and repeats the foregoing discussion to support the patentability of claim 6.

Applicant submits that the rejection has not established a *prima facie* case under 35 U.S.C. § 102(b) since the rejection has not shown that each element is identically shown by the cited patent. MPEP § 2143, *In re Royka*, 490 F.2d 981 (CCPA 1974). Applicant is unable to find the subject matter of claim 6 in the Allen et al. reference as asserted in the rejection. Applicant respectfully traverses the rejection. For example, among others, Applicant is unable to find in Allen et al. reference to a mounting socket further comprising a ground and power line circuit laid on a polymer tape. Applicant respectfully submits that the combination of citations within the reference as cited by the Office Action fails to teach or describe the subject matter of claim 6. For example, among others, the reference cited by the Office Action, col. 14, lines 24-38, regarding the ground plane, fails to describe the subject matter of Applicant's claim 6; that is, the relationship between the circuit and the mounting socket.

Reconsideration and allowance of claim 6 is respectfully requested.

#### Claim 7

Applicant respectfully submits that claim 7 is patentable as a further limitation of claim 5 and repeats the foregoing discussion to support the patentability of claim 7.

Reconsideration and allowance of claim 7 is respectfully requested.

#### Claim 8

Applicant respectfully submits that claim 8 is patentable as a further limitation of base claim 1 and repeats the foregoing discussion to support the patentability of claim 8.

Applicant submits that the rejection has not established a *prima facie* case under 35 U.S.C. § 102(b) since the rejection has not shown that each element is identically shown by the cited patent. MPEP § 2143, *In re Royka*, 490 F.2d 981 (CCPA 1974). Applicant is unable to find the subject matter of claim 8 in the Allen et al. reference as asserted in the rejection. Applicant respectfully traverses the rejection. For example, among others, Applicant is unable to find in Allen et al. reference to a push plate as defined by Applicant's specification at page 6, lines 7-11. Applicant respectfully submits that the Office Action is confusing the printed circuit board and the chip carrier with a push cover.

Reconsideration and allowance of claim 8 is respectfully requested.

#### Claims 9 and 11

Claims 9 and 11 have been amended to more clearly recite the claimed subject matter including, among other things, solderless compressible contact terminals. Applicant submits that no new matter has been entered, and support can be found on page 4, lines 11- page 5, line 2. Applicant respectfully submits that the subject matter of claims 9 and 11 is not found in the Allen et al. reference as. For example, among others, Applicant is unable to find in the Allen et al. reference a mounting socket wherein the solderless compressible conductive terminals within the vias contain no solder as defined by the Allen et al. reference, column 7, lines 26-31. In addition, among other things, Applicant is unable to find in the Allen et al. reference, the method wherein the solderless compressible conductive terminals are compressed while the socket is adhered to the board.

Reconsideration and allowance of claims 9 and 11 is respectfully requested.

#### Claim 10

Applicant respectfully submits that claim 10 is patentable as a further limitation of base claim 9 and repeats the foregoing discussion to support the patentability of claim 10.

Claims 12, 18, 20, 21 and 22

Claims 12, 18, 20, 21 and 22 have been amended to more clearly recite the claimed subject matter including, among other things, solderless conductive terminals. Applicant respectfully submits that no new matter has been entered, and support can be found on page 6, lines 14-16, page 7, lines 2-3, and page 8, lines 14-19, among others. Applicant respectfully submits that the subject matter of claims 12, 18, 20, 21 and 22 is not found in the Allen et al. reference. For example, among others, Applicant is unable to find in the Allen et al. reference, a solderless circuit interconnect, circuit package, integrated circuit, or circuit assembly, wherein the conductive terminals within the vias contain no solder as defined by the Allen et al. reference, column 7, lines 26-31.

Reconsideration and allowance of claims 12, 18 and 20-22 is respectfully requested.

Claims 13-17 and 19

Applicant respectfully submits that claims 13-17 are patentable as further limitations of base claim 12 and repeats the foregoing discussion to support the patentability of claims 13-17.

Applicant respectfully submits that claim 19 is patentable as a further limitation of base claim 18 and repeats the foregoing discussion to support the patentability of claim 19.

Applicant is unable to find the subject matter of claim 15 in the Allen et al. reference as asserted in the rejection. Applicant submits that the rejection has not established a *prima facie* case under 35 U.S.C. § 102(b) since the rejection has not shown that each element is identically shown by the cited patent. MPEP § 2143, *In re Royka*, 490 F.2d 981 (CCPA 1974). Applicant respectfully traverses the rejection. For example, among others, Applicant is unable to find in the Allen et al. reference a conductive rubber terminal. The Office Action cites Figs. 3(B), 4 and 8, and col. 9, lines 45-60, as reference to "plastic". Applicant does not see in Figs. 3(B), 4 and 8 reference made to plastic nor to conductive rubber. Applicant respectfully submits that the Office Action mistakenly proposes that a material undergoing elastic/plastic deformation, as described in the reference at col. 9, lines 45-60, as one being composed of conductive rubber. Applicant respectfully traverses this proposition, and respectfully submits that no reference to conductive rubber for the terminal material is found in the cited reference.

Applicant is unable to find the subject matter of claim 17 in the Allen et al. reference as asserted in the rejection. Applicant submits that the rejection has not established a *prima facie*



case under 35 U.S.C. § 102(b) since the rejection has not shown that each element is identically shown by the cited patents. MPEP § 2143, *In re Royka*, 490 F.2d 981 (CCPA 1974). Applicant respectfully traverses the rejection and refers to the arguments made for claim 4 to support that there is no reference in Allen et al. regarding, among other things, conductive polymer injected within the vias.

Reconsideration and allowance of claims 13-17 and 19 is respectfully requested.

### Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 371-2157 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

KENZO ISHIDA ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402  
(612) 349-9592

Date October 17, 2000

By

Paul J. Fordenbacher  
Reg. No. 42,546

**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 17 day of October 2000.

**Jane E. Brockschink**

Name

  
Signature

RECEIVED  
OCT 24 2000  
TECHNOLOGY CENTER 2800

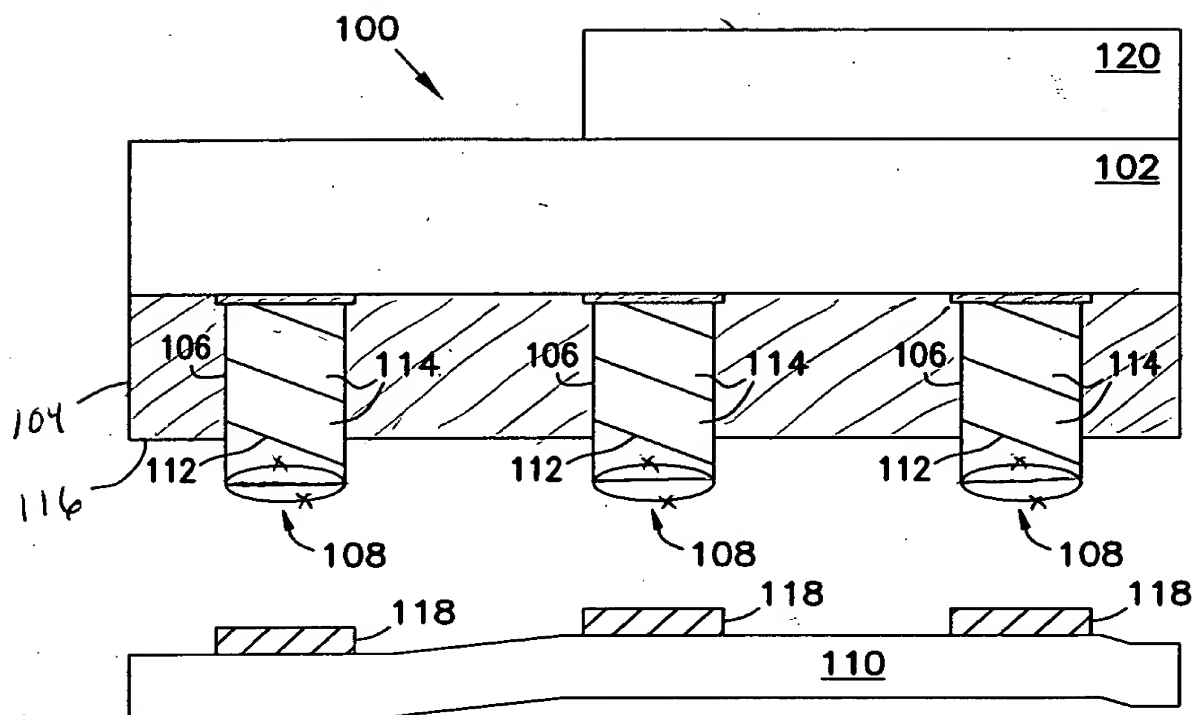


FIG. 1

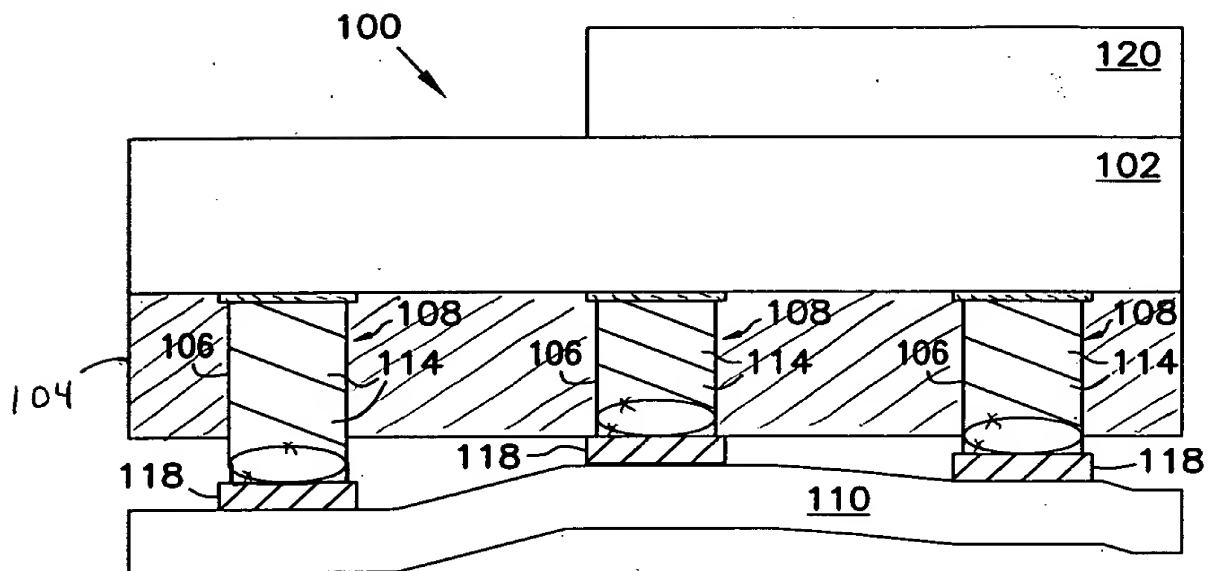


FIG. 2



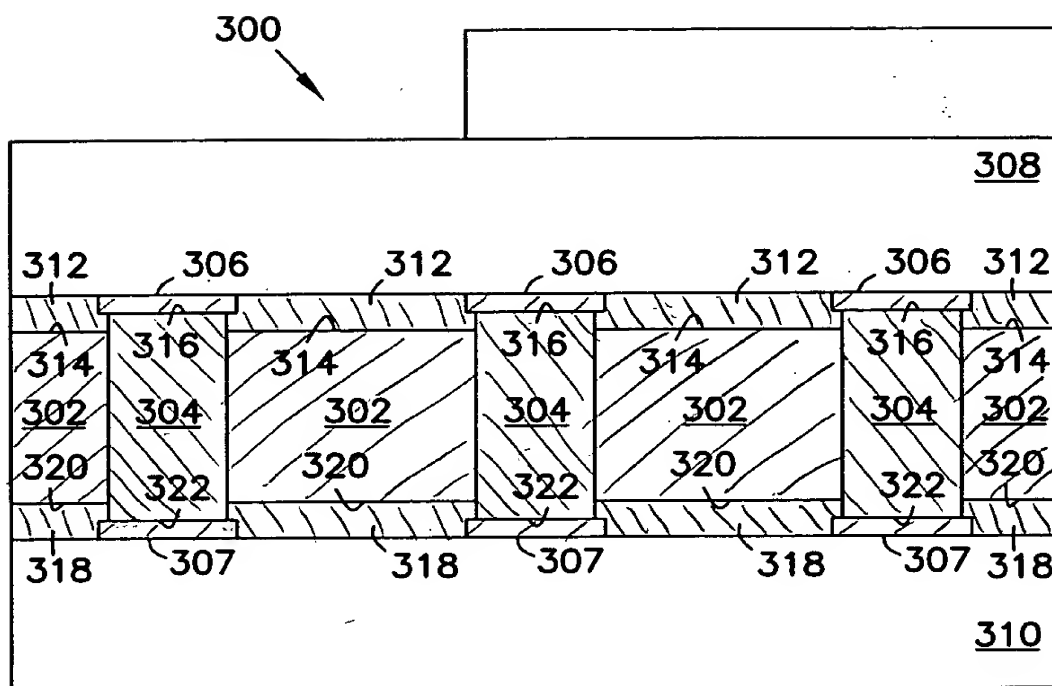


FIG. 3

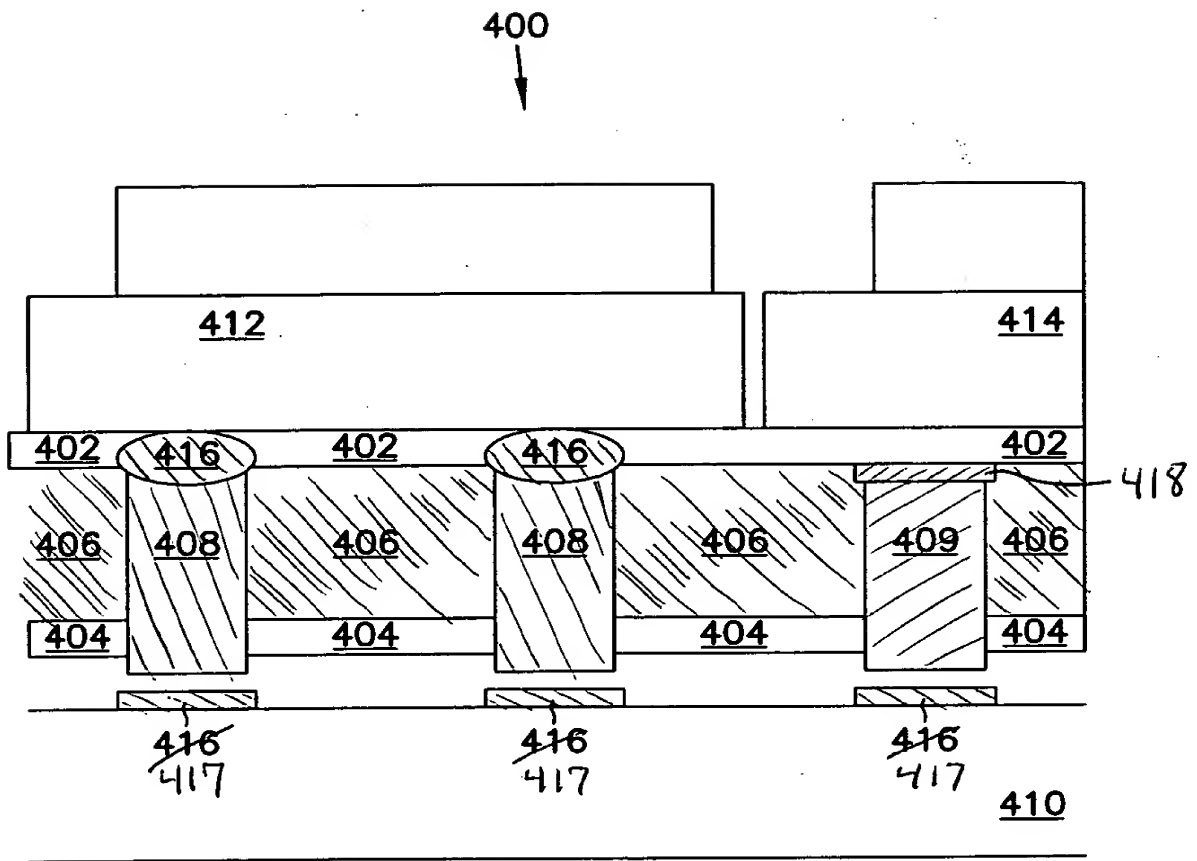


FIG. 4

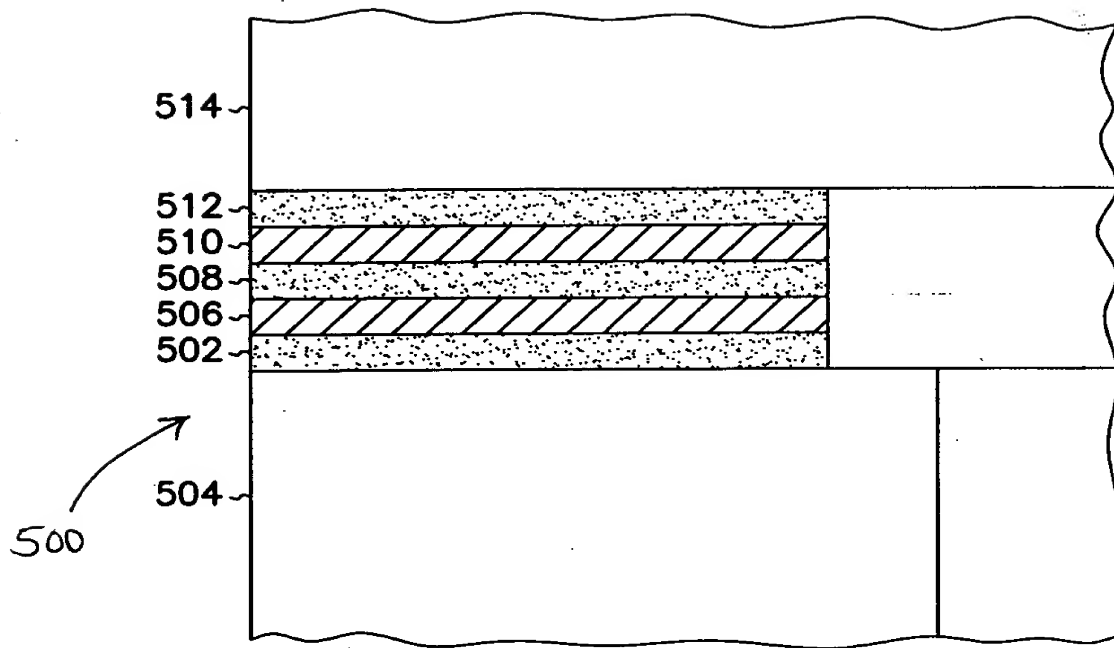


FIG. 5